

### Amendments to the Claims

1. (Currently Amended) A computer-implemented method comprising:  
receiving a plurality of events;  
5       applying the plurality of events to a correlation function, wherein the  
correlation function is implemented as a state machine and is configured to  
correlate the plurality of events;  
      identifying an event to which an update consumer has subscribed, wherein  
the update consumer is;  
10       a class object separate from the state machine; and  
      configured to update associated with the state machine when the  
      event to which the update consumer has subscribed occurs;  
      applying the update consumer to the state machine in response to the  
identified event; and  
15       generating a specific event if the correlation function is satisfied by the  
plurality of events.

2. (Canceled)

20       3. (Original) A method as recited in claim 1 further including:  
receiving a data element; and  
      applying the data element and at least one of the plurality of events to the  
correlation function.

4. (Original) A method as recited in claim 1 further including:  
receiving a plurality of data elements; and  
applying the plurality of data elements and the plurality of events to the  
correlation function.

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5. (Original) A method as recited in claim 1 further including  
communicating the specific event to at least one event consumer that subscribed to  
the specific event.

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6. (Original) A method as recited in claim 1 further including continuing  
to receive additional events and apply the additional events to the correlation  
function if the correlation function is not satisfied by the plurality of events.

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7. (Original) A method as recited in claim 1 further including resetting the  
correlation function after generating a specific event.

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8. (Original) A method as recited in claim 1 further including:  
creating an instance of a particular state machine; and  
defining transitions for the particular state machine by subscribing to at  
least one event.

9. (Previously Presented) A method as recited in claim 8 further including  
deleting the instance of the particular state machine if the instance of the particular  
state machine reaches a final state.

10. (Original) One or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 1.

5 11. (Currently Amended) A computer-implemented method comprising:  
receiving a plurality of events;  
receiving a plurality of data elements;  
identifying a plurality of correlation functions configured to correlate the  
plurality of events and the plurality of data elements, wherein each correlation  
10 function is implemented with an associated state machine, and wherein each state  
machine has an associated update consumer provided as a class object separate  
from the associated state machine that updates the state of the associated state  
machine;  
applying the plurality of events and the plurality of data elements to the  
15 plurality of correlation functions; and  
generating a specific event if at least one of the plurality of correlation  
functions is satisfied.

20 12. (Previously Presented) A method as recited in claim 11 further  
comprising deleting a particular state machine when the particular state machine  
reaches a final state.

13. (Canceled)

14. (Original) A method as recited in claim 11 further including communicating the specific event to at least one event consumer that subscribed to receive the specific event.

5 15. (Original) A method as recited in claim 11 further including:  
receiving additional events;  
receiving additional data elements; and  
applying the plurality of events, the additional events, the plurality of data  
elements and the additional data elements to the plurality of correlation functions.

10 16. (Previously Presented) A method as recited in claim 11 further  
including:  
receiving additional events;  
receiving additional data elements;  
15 receiving additional correlation functions; and  
applying the plurality of events, the additional events, the plurality of data  
elements and the additional data elements to the plurality of correlation functions  
and the additional correlation functions.

20 17. (Original) A method as recited in claim 16 further including  
generating the specific event if at least one of the plurality of correlation functions  
or at least one of the additional correlation functions is satisfied.

18. (Original) A method as recited in claim 11 wherein the specific event generated is dependent on which correlation function is satisfied.

19. (Original) One or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 11.

20. (Currently Amended) A computer-implemented method comprising:  
identifying a schema for creating state machines, the state machines to correlate at least two events;  
creating an instance of a particular state machine;  
defining transitions for the particular state machine by subscribing to at least one event; and  
applying an update consumer to the particular state machine to update the state of the particular state machine, wherein the update consumer is a class object provided separate from the particular state machine.

21. (Original) A method as recited in claim 20 further including deleting the particular state machine if the particular state machine reaches a final state.

22. (Original) A method as recited in claim 20 wherein the particular state machine includes a timer, the method further including deleting the particular state machine if the timer expires.

23. (Original) A method as recited in claim 20 wherein the particular state machine correlates at least one event and at least one data element.

24. (Original) A method as recited in claim 20 wherein the particular state machine correlates a plurality of events and a plurality of data elements.

25. (Original) A method as recited in claim 20 further including determining a current state of the particular state machine.

26. (Canceled).

27. (Original) One or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 20.

28. (Currently Amended) An apparatus comprising:  
a processor;  
a plurality of event consumers; and  
an event correlator coupled to the plurality of event consumers, the event  
5 correlator executable via the processor to receive events from at least one event  
source and to receive data elements from at least one data source, the event  
correlator further to receive at least one correlation function configured to  
correlate events and data elements and to apply the received events and the  
received data elements to the correlation function, wherein the correlation function  
10 is implemented by a state machine having an associated update consumer provided  
as a class object separate from the state machine that updates the state of the state  
machine, and wherein the event correlator generates a specific event if the  
received events and the received data satisfy the correlation function.

15 29. (Original) An apparatus as recited in claim 28 wherein the event  
correlator communicates the specific event to the plurality of event consumers.

30. (Original) An apparatus as recited in claim 28 wherein the event  
correlator communicates the specific event to event consumers that have requested  
20 to receive the specific event.

31. (Original) An apparatus as recited in claim 28 wherein the event  
correlator communicates the specific event to a plurality of filters, wherein each of  
the plurality of filters is associated with one of the plurality of event consumers.

32-33. (Canceled).

34. (Original) An apparatus as recited in claim 28 wherein the event correlator continues to receive additional events and additional data elements and apply the additional events and the additional data elements to the correlation function.

35. (Currently Amended) One or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to:

receive a plurality of events;

identify a plurality of correlation functions configured to correlate the plurality of events, wherein each of the plurality of correlation functions is implemented as a state machine having an associated update consumer provided separate from the state machine to update the state of the state machine;

apply the plurality of events to the plurality of correlation functions to determine whether any of the plurality of correlation functions are satisfied by the plurality of events, wherein the plurality of events are applied by causing update consumers associated with each event to update the state of the associated state machine when the associated event occurs; and

generate a specific event if one of the plurality of correlation functions is satisfied by the plurality of events.

36. (Canceled).



37. (Previously Presented) One or more computer-readable media as recited in claim 35 wherein each state machine is a class object.

38. (Original) One or more computer-readable media as recited in claim 37 further causing the one or more processors to identify a current state of the state machine.

39. (Original) One or more computer-readable media as recited in claim 35 further causing the one or more processors to:

create a new instance of a state machine to implement a particular correlation function; and

define transitions for the new instance of the state machine by subscribing to at least one event.

40. (Currently Amended) A computer-implemented method comprising:  
receiving events from event providers;  
creating a first state machine;  
creating a second state machine;  
5 associating a first event type with the first state machine, wherein the first  
state machine has an associated first update consumer separate from the first state  
machine to update the state of the first state machine;  
associating a second event type with the second state machine, wherein the  
second state machine has an associated second update consumer separate from the  
10 second state machine to update the state of the second state machine;  
in response to receiving an event having a first event type, applying the first  
update consumer to the first state machine;  
in response to receiving an event having a second event type, applying the  
second update consumer to the second state machine; and  
15 if the events are correlated:  
generating an additional event; and  
sending the additional event to an event consumer.

41. (Previously Presented) The method as recited in claim 40, further  
20 comprising deleting the first state machine if the first state machine reaches a final  
state.

42. (Previously Presented) The method as recited in claim 40, wherein the additional event is sent to the event consumer through a filter associated with the event consumer.

5        43. (Previously Presented) The method as recited in claim 40, wherein the event consumer includes at least one of an event logging consumer, an event forwarding consumer, a mail consumer, and a scripting consumer.